LIVERPOOL INVESTMENT LETTER

December 2020

Cardiff Business School

Ysgol Busnes Caerdydd

Julian Hodge Institute of Applied Macroeconomics

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

LIVERPOOL RESEARCH GROUP IN MACROECONOMICS

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The Julian Hodge Institute was launched in autumn 1999 in a new collaboration between the Cardiff Business School of Cardiff University and Hodge. The aim of the Institute is to carry out research into the behaviour of the UK economy, and to study in particular its relationship with the other economies of Europe. The research has been particularly germane in recent years and has proved to be of significant social and political relevance as Europe has navigated the difficulties of the global financial crash, the Eurozone crisis and most recently the UK referendum on EU membership. The Liverpool Investment Letter is written by Patrick Minford, with the assistance of other members of the Group; in particular the emerging markets section is written by Anupam Rastogi, and the focus on Japan is written by Francesco Perugini. The Investment Letter is published monthly.

The Liverpool Research Group in Economics is pursuing a research programme involving the estimation and use of macroeconomic models for forecasting and policy analysis. The Group is now mainly based in Cardiff Business School, Cardiff University, and is indebted to the School and to the Hodge Foundation for their support. The Group's activities contribute to the programmes being pursued by the Julian Hodge Institute of Applied Macroeconomics. This Liverpool Investment Letter is typeset by David Meenagh and published on behalf of the group by Liverpool Macroeconomic Research Limited, which holds the copyright

ISSN 0951-9262

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There have predictably been demands from the Treasury and its allies for taxes 'on the rich' to pay off the Covid debt. Any tax rises, whoever pays them, would be disastrous in the post-Covid period when fiscal policy needs to embark on supply-side reforms and give demand-side support to underpin future recovery and growth. Higher marginal tax rates on successful entrepreneurs would be a particular supply-side disaster, badly hitting growth. With the real interest rate less than the growth rate government solvency is secure and it is free of solvency risk to postpone paying off the cost of the Covid debt plus more incurred from deficits during the recovery period. It should return to primary surpluses once the real interest rate once again exceeds the growth rate.

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THE POST-COVID BUDGET DEBATE

With the arrival of Covid vaccines soon, thoughts are turning to the post-Covid era and most pressingly what to do about the huge debts the government has racked up.

Inevitably the Treasury and its allies, the OBR and the IFS, have got in first, with strong pleas for tax rises. To achieve palatability with the voter majority, they plead for taxes 'on the rich' to go up. However, these taxes are extremely damaging to enterprise. The last thing the UK needs to acquire is a reputation for fleecing the successful/rich.

The key point concerns marginal tax rates on top incomes which both hit entrepreneur incentives and by their damaging effect on business in fact lower tax revenues in the long run. The huge rise in tax revenues over the 1980s owed much to the cutting of top marginal tax rates from 80% to 40% by 1988.

The key point for the long term health of the public finances concerns the rate of interest and the longevity of the public debt. Interest rates are close to zero which makes real interest rates negative and less than the prospective post-Covid growth rate. The box below sets out the formula (where P=price level, y=real GDP, and Py=nominal GDP).

Box: The long-run balance sheet condition for solvency:

The formula for solvency equates the PV of current and future discounted primary surpluses (t-e) with the market value of debt, D, as follows:

(t-e) Py $\sum_{i=0}^{\infty}[(1+\pi+g-d)/1+R]^{i}=D$

π =inflation; g =growth of GDP;d = proportional rate of decline of initial primary surplus, t-e; R =nominal long-run interest rate; $r=R-\pi$

If r is greater than g, and d=0, the LHS does not converge, goes to infinity. If d is raised to just above g-r, then LHS converges, becoming

(t-e)Py/(r-g+d), so that solvency can be written:

(t-e)= [D/Py](r-g+d)

Re-expressing all this in the vernacular, we can say that the government is extremely fortunate in its timing for three reasons. First, interest rates on very long-term debt are close to zero and so if it can reissue most, if not all its debt as perpetuities at this rate, it will have locked this rate in for a very long time, so proofing itself against the future rise in rates that it needs to engineer for the sake of the economy's health.

Second, with so much money sloshing around the economy, it should be in a strong position to see inflation return to a healthy positive rate.

Third, it can underpin future growth with supply-side reform and demand side support from fiscal policy.

With these three elements in place, real interest rates will be firmly less than the growth rate. This implies that any current primary surplus, however small will generate infinitely large future ones without any rise in tax rates, overegging solvency to an infinite extent. This situation permits the government to cut the tax rate or raise the spending rate steadily regardless of its huge post-Covid debt: raising the primary surplus at the rate *d*.

But more importantly it allows it to cut taxes and raise spending, financed by new higher debt, for a temporary period of fiscal expansion — without any resulting rise in the long run primary surplus/GDP, *t-e*. This is because the extra debt cost will be close to zero: the extra tax needed is the extra debt times (*r-g+d*) where (*r-g+d*) is trivially above zero.

These opportunities to cut the surplus steadily and to borrow new debt costlessly will end once real interest rates rise above the growth rate.

But that will take some time to occur; interest rates must rise and inflation be kept down. If the government acts boldly, growth will be boosted by the supply-side and Brexit reforms it brings in.

Furthermore, however quickly it occurs it will not force up the cost of paying off the Covid debt because that cost will have been locked in at nugatory levels during the current episode. There is no urgency at all to raise tax rates to pay off this trivial cost; it can be deferred until growth is well set again, the necessary reforms brought in and the real rate once more above the growth rate.

In sum, the government has a good period of time — probably around five years — in which it can, and should, run a strong fiscal expansion to both permit supply-side reforms and support demand. In the process it will push up interest rates and restore normality to the savings market and the monetary environment.

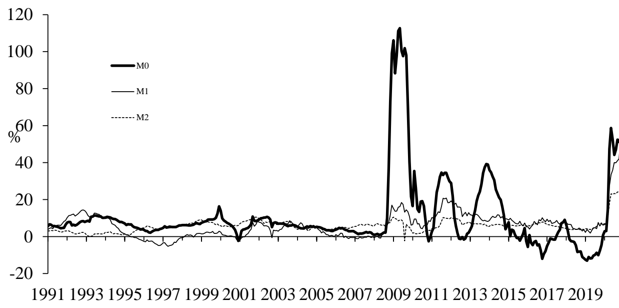
It would be a step forward in the debate if the Treasury and its allies firmly grasped this arithmetic, supporting the government in these necessary supportive fiscal policies.

Table 1: Summary of Forecast

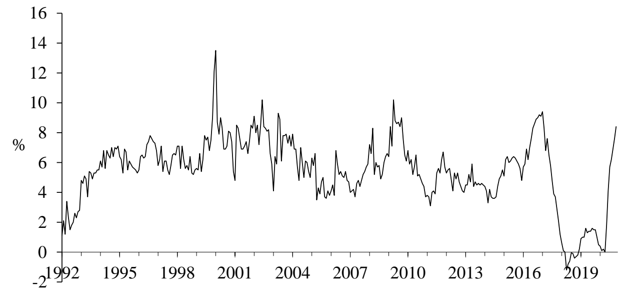
	2017	2018	2019	2020	2021	2022	2023
GDP Growth[1]	1.8	1.3	1.4	-10.6	6.1	4.2	3.2
Inflation CPI	2.6	2.4	1.8	0.9	1.6	2.1	2.0
Wage Growth	2.8	3.0	3.5	0.3	2.3	3.2	3.3
Unemployment (%)[2]	4.4	4.1	3.8	5.0	5.6	3.6	2.9
Exchange Rate[3]	77.4	78.6	78.1	78.6	80.1	80.0	79.9
3 Month Interest Rate	0.4	0.7	0.8	0.2	0.2	1.5	4.5
5 Year Interest Rate	0.6	1.0	0.6	0.2	0.4	1.8	4.7
Current Balance (£bn)	-68.3	-82.9	-83.8	-42.1	-47.1	-41.1	-36.8
PSBR (£bn)	53.7	39.3	43.2	332.5	155.3	86.4	40.4

[1]Expenditure estimate at factor cost
[2]U.K. Wholly unemployed excluding school leavers (new basis)
[3]Sterling effective exchange rate, Bank of England Index (2005 = 100)

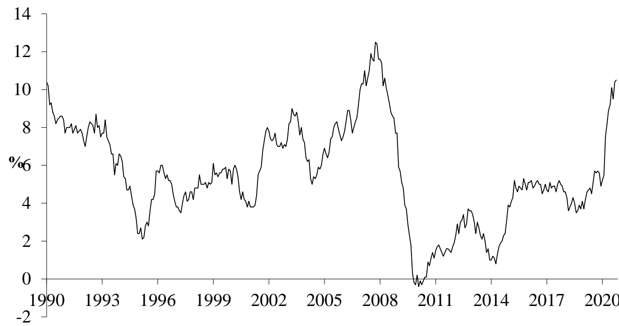
U.S.: Growth in Monetary Aggregates (Yr - on - Yr)



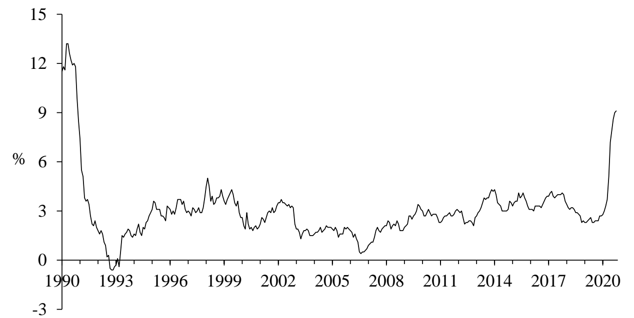
UK: Notes and Coins in Circulation Growth



Eurozone M3 Growth



Japan: Growth of M2+CD's



FOCUS ON JAPAN

Francesco Perugini

The Japanese economy rebounds but the Covid-19 crisis worsens

Japan's economy grew at the fastest pace on record in the third quarter, rebounding sharply from its biggest post-war slump, as improved exports and consumption helped the country emerge from the damage caused by the coronavirus pandemic. Gross Domestic Product (GDP) expanded 5% quarter-on-quarter in the July–September quarter, beating the median market forecast and marking the first increase in four quarters, government data showed on 16th of November. It was the biggest increase since comparable data became available in 1980 and followed the 8.2% q-o-q plunge in the second quarter, when consumption took a hit from lock-down measures to prevent the spread of the virus.

The rebound was driven largely by a record 4.7% surge in private consumption, as households boosted spending on cars, leisure and restaurants, a government official told a briefing. External demand also added 2.9 percentage points to GDP growth thanks to a rebound in overseas demand that pushed up exports by 7.0%, the data showed. But capital expenditure fell 3.4%, shrinking for a second straight quarter in a worrying sign for policymakers hoping to revitalise the economy with private-sector spending.

Economy Minister Yasutoshi Nishimura said the economy still had over ¥30 trillion of negative output gap — about 6% of GDP — or spare capacity, part of which must be filled by a new stimulus package now in the works. "We can't make up for all of the output gap just with public works spending. We also need to spur private investment. But the size (of the output gap) is something we'll look at in compiling the new spending package", he told a news conference. A negative output gap occurs when actual output is less than the economy's full capacity and is seen as a sign of weak demand. Without additional stimulus, Japan may experience a fiscal cliff next year as the effect of two big packages deployed earlier this year disappear. Prime Minister Yoshihide Suga has instructed his cabinet to come up with another package, which analysts say could be sized anywhere between ¥10–30 trillion (2–6% of GDP). "Nishimura's remark on the 30-trillion-yen output gap suggests the size of the new package would come by as much," said Takeshi Minami, chief economist at Norinchukin Research Institute. The Bank of Japan (BOJ) is also expected to extend its corporate funding program beyond its March deadline, with a decision expected next month or January, analysts say.

However, analysts painted the sharp bounce back as a one-off from the depths of recession and cautioned that any further rebound in the economy will be moderate as a resurgence in infections at home and abroad clouds the outlook. "The strong growth in July–September was likely a one-off rebound from an extraordinary contraction caused by the lock-down steps," said Yoshiki Shinke, chief economist at Dai-ichi Life Research Institute. "The economy may not fall off a cliff. But given uncertainty over the outlook, I would err on the side of caution in terms of the pace of any recovery," he said.

Indeed, coronavirus infections have surged to a record high last month with the arrival of the flu season: the number of new infections hit 2,577 on November 29th and an almost fourfold increase on the month. Lockdown fatigue is a key factor. After nine months of social distancing, people are itching for social interaction, despite government warnings. For instance, Sapporo the capital city of Hokkaido, has a vibrant nightlife with many pubs, nightclubs and other attractions, all of which have started to come alive again after initial lockdowns. The city's entertainment district, along with the area's seafood and scenery, are huge tourist draws. Cold winters have also played a part. Researchers have found that the coronavirus remains active for longer at cooler temperatures, increasing the risk of people breathing in droplets or touching infected surfaces. People also tend to stay indoors, where air is not well ventilated. Air also tends to be dry in winter, drying out the mucous membranes of the body's airways — the first line of defence against the virus — making people more susceptible to infection. Experts warn that medical facilities could be overwhelmed unless people start changing their behaviour, including paying closer attention to social distancing guidelines.

Prime Minister Yoshihide Suga recently called for the public to wear masks when dining and meeting others. What he meant was to keep voices low during meals, take off masks only when eating, and put them on when conversing. The new campaign forms part of his effort to avoid any business restrictions for fear they will damage the economy. He is determined to keep business as usual despite the virus upsurge. There will be no stay-at-home requests or shutdowns of bars and restaurants. The Suga government intends to continue its "Go To" subsidy campaign for domestic travel, even as medical professionals voice concern that it could add to the country's virus woes, especially through asymptomatic carriers. That means it is up to the public to follow Japan's loose social distancing rules.

However, there is a growing call for more stringent rules. If cases continue to increase at the current rates in Tokyo and Osaka, "cluster measures and efforts by the people alone will not be enough to control [the virus]," said Shigeru Omi, head of Japan's panel of experts. All this implies that record COVID-19 cases are increasing the risk of the economy losing recovery momentum and even shrinking again as the spread of infections complicates the government's plans to support growth. "Just a little push will be enough to bring Japan into a double dip. It's becoming acutely clear that the

government isn't able to contain virus cases while boosting economic activity", said Shinichiro Kobayashi, chief economist at Mitsubishi UFJ Research & Consulting Co.

MARKET DEVELOPMENTS

With fiscal expansion likely as above, real interest rates will be driven upwards gradually, and growth with them. The growth should keep equities firm, while rising interest rates will reduce bond prices, probably by a lot.

Table 1: Market Developments

	Market Levels		Prediction for Sep/Pct 2021	
	Oct 30	Dec 14	Previous Letter	Current View
Share Indices				
UK (FT 100)	5577	6532	7669	10209
US (S&P 500)	3270	3647	3996	4964
Germany (DAX 30)	11556	13223	19322	21699
Japan (Tokyo New)	1579	1791	1946	2098
Bond Yields (government)				
UK	0.23	0.22	2.50	2.50
US	0.86	0.90	2.80	1.30
Germany	–0.64	–0.62	–0.20	–0.20
Japan	0.05	0.01	0.00	0.00
UK Index Linked	–2.33	–2.37	1.00	1.00
Exchange Rates				
UK ($ per £)	1.29	1.33	1.32	1.30
UK (trade weighted)	77.69	77.35	78.0	80.0
US (trade weighted)	102.35	100.30	102.5	102.5
Euro per $	0.86	0.82	0.85	0.88
Euro per £	1.11	1.10	1.12	1.14
Japan (Yen per $)	104.54	104.08	112.5	107.5
Short Term Interest Rates				
UK	0.83	0.83	2.00	0.30
US	0.23	0.24	1.80	1.00
Euro	–0.51	–0.55	–0.30	–0.50
Japan	–0.20	–0.15	0.10	0.10

Table 2: Prospective Yields [1]

Equities: Contribution to £ yield of:

	Dividend Yield	Real Growth	Inflation	Changing Dividend Yield	Currency	Total
UK	3.60	2.4	1.9	52.00		59.90
US	1.99	2.2	2.0	31.90	2.37	40.46
Germany	3.30	1.6	1.5	61.00	–4.30	63.10
Japan	1.90	0.6	1.6	15.00	–0.83	18.27
UK indexed[2]	–2.37		2.0	8.00		7.53
Hong Kong[3]	2.60	5.5	2.0	5.00	2.37	17.47
Malaysia	3.30	6.9	2.0	85.00	2.37	99.57
Singapore	3.50	5.0	2.0	54.00	2.37	66.87
India	1.40	5.0	2.0	14.00	2.37	24.77
Korea	1.10	2.0	2.0	–9.00	2.37	–1.53
Indonesia	2.20	4.8	2.0	41.00	2.37	52.37
Taiwan	2.80	2.9	2.0	38.00	2.37	48.07
Thailand	3.20	4.1	2.0	51.00	2.37	62.67

Bonds: Contribution to £ yield of: –

	Redemption Yield	Changing Nominal Rates	Currency	Total
UK	0.22	–2.83		–2.61
US	0.90	–3.97	2.37	–0.69
Germany	–0.62	–4.18	–4.30	–9.10
Japan	0.01	0.08	–0.83	–0.75

Deposits: Contribution to £ yield of:

	Deposit Yield	Currency	Total
UK	0.83		0.83
US	0.24	2.37	2.61
Euro	–0.55	–4.30	–4.85
Japan	–0.15	–0.83	–0.98

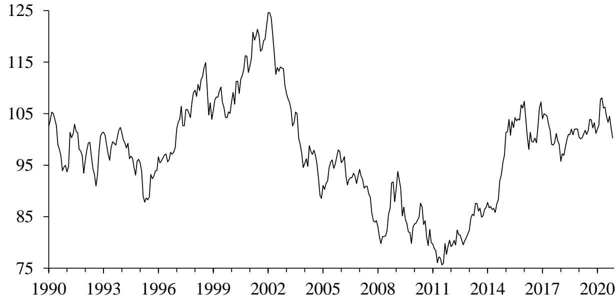
[1] Yields in terms of €s or $s can be computed by adjusting the £-based yields for the expected currency change.
[2] UK index linked bonds All Stocks
[3] Output based on China.

Table 3: Portfolio(%)

	Sterling Based Investor		Dollar Based Investor		Euro Based Investor	
	November Letter	Current View	November Letter	Current View	November Letter	Current View
UK Deposits (Cash)	5	5	5	5	1	1
US Deposits	-	-	-	-	-	-
Euro Deposits	-	-	-	-	-	-
Japanese Deposits	-	-	-	-	-	-
UK Bonds	-	-	-	-	-	-
US Bonds	-	-	-	-	-	-
German Bonds	-	-	-	-	-	-
Japanese Bonds	-	-	-	-	-	-
UK Shares	19	19	14	14	17	17
US Shares	14	14	19	19	16	16
German Shares	14	14	14	14	21	21
Japanese Shares	9	9	9	9	11	11
Hong Kong/Chinese Shares	4	4	4	4	4	4
Singaporean Shares	4	4	4	4	4	4
Indian Shares	4	4	4	4	4	4
Thai Shares	3	3	3	3	3	3
South Korean Shares	4	4	4	4	4	4
Taiwanese Shares	4	4	4	4	3	3
Brazilian Shares	4	4	4	4	3	3
Chilean Shares	4	4	4	4	3	3
Mexican Shares	4	4	4	4	3	3
Peruvian shares	4	4	4	4	3	3
Other:						
Index-linked bonds (UK)	-	-	-	-	-	-

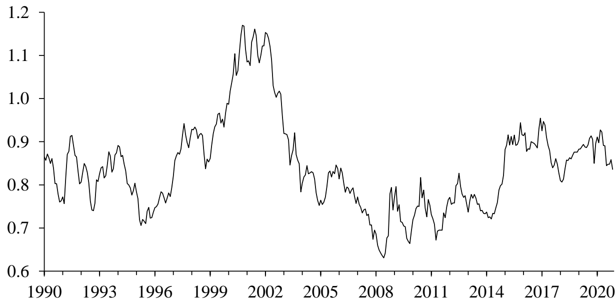
INDICATORS AND MARKET ANALYSIS
FOREIGN EXCHANGE MARKETS

US : Trade Weighted Index
(Bank of England 1990 = 100)

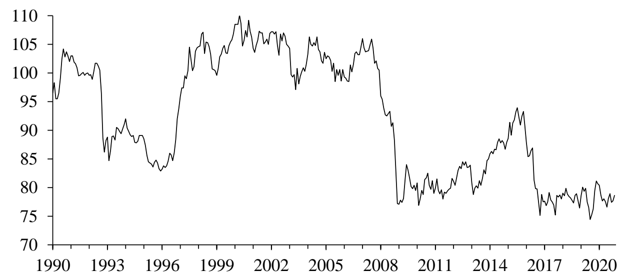


UK: Dollars Per Pound Sterling

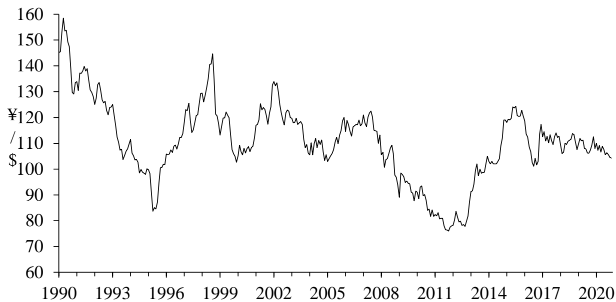
Euro per US dollar



UK: Trade-Weighted Index
(Bank of England 1990 = 100)



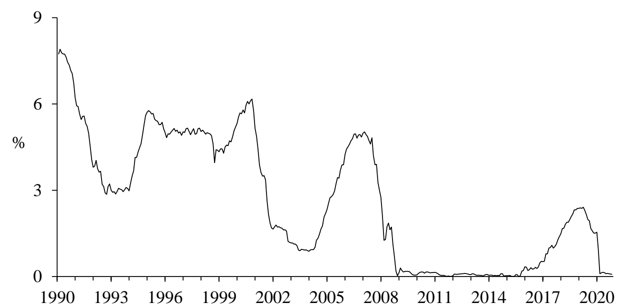
Japan : Yen Per U.S. Dollar



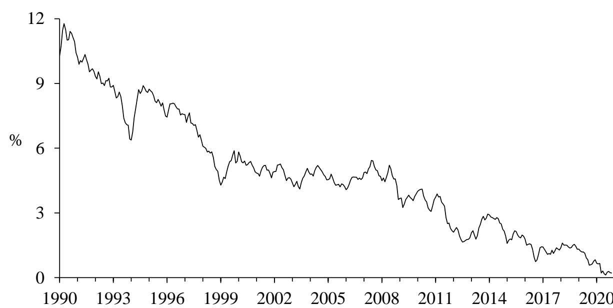
GOVERNMENT BOND MARKETS

U.S.: Yield on Long-Term Government Bonds

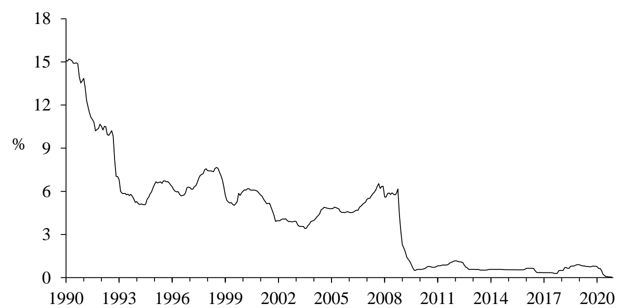
U.S. : 3-Month Treasury Bill



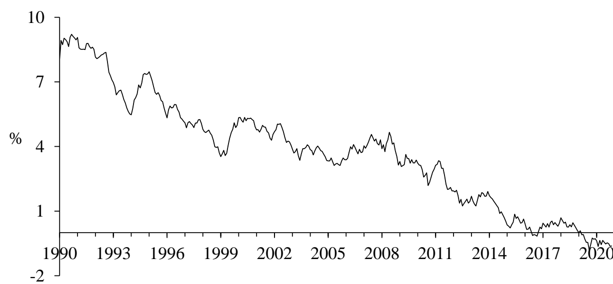
U.K.: Yield on Long-Term Government Bonds



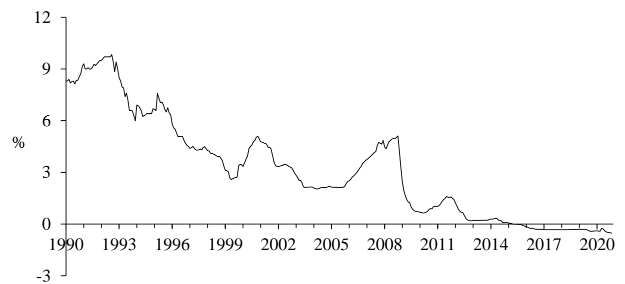
U.K. : 3-Month Certificate LIBOR Rate



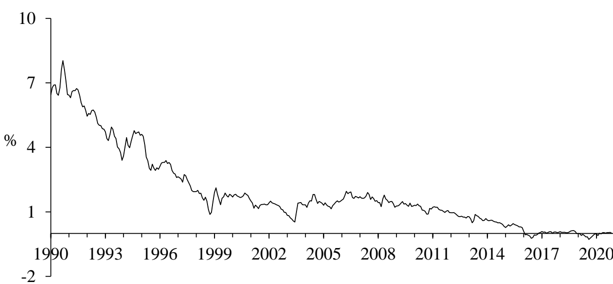
Germany: Yield on Public Authority Bonds



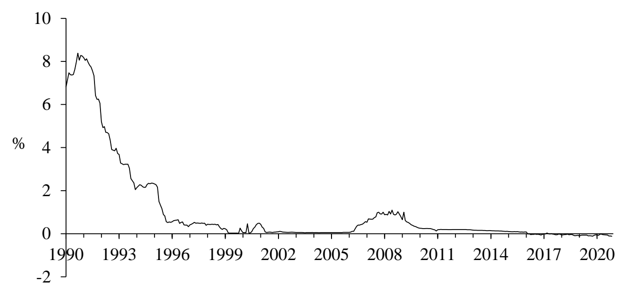
Germany : 3-Month Interbank Deposit Rate



Japan: Yield on Long-Term Government Bonds



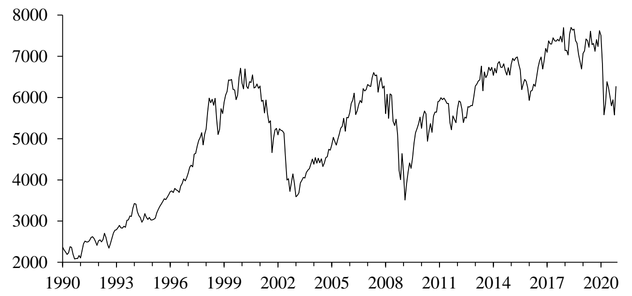
Japan : 3-Month Money Market Rate



MAJOR EQUITY MARKETS

U.S. : S & P 400 Industrial (1985=100)

U.K. : FTSE-100 Index (10 April 1962=100)



Germany : DAX 30

Japan : Tokyo S.E. New (1985=100)

EMERGING MARKETS

Anupam Rastogi

India

The Indian economy in the July–September quarter staged an impressive recovery from the record decline of the preceding three months, suggesting that the resumption of economic activity has been gathering pace. We are going to maintain our GDP forecast of contraction of 6% in the FY21 (April 2020 to March 2021) and a modest growth of 5% in FY22. Not surprisingly, many analysts have started revising upwards their projections for India's economic performance in the current fiscal year FY21 after gross domestic production (GDP) posted a moderate contraction of 7.5% in the July–September quarter. The recovery has extended into the third quarter of the fiscal, with several high frequency indicators including PMI, auto sales, GST collections recording an expansion, thanks to a strong festive-led demand. The pent-up demand of the lock-down period and organic demand emanating from the rural sector would help to wipe out the GDP contraction of the first quarter of FY21. But, GDP growth in FY22 would remain subdued, compared to bullish forecast of IMF etc. as services sector would take time to grow at a healthy pace due to fear factor among high spending individuals and economic activity such as hotels, restaurants etc. which comes with business and leisure travel.

By now, a large fraction of India is immune to Covid-19. The survey evidence shows considerable seroprevalence for the urban poor. In Mumbai, a sero survey suggests that 75% of poor population has got anti-bodies of Covid 19 virus.

The government has used the pandemic to bring about structural changes in the economy. The government has dismantled a longstanding system that blocked farmers from selling directly to consumers and forced them to sell most of their crops through government-approved wholesale markets. It passed labour measures that increased the number of companies that can fire workers without government approval. It also expanded the country's social-security program to include many contract workers. With more global companies looking for ways to diversify their supply chains away from China, India is also trying to make it easier and more profitable for foreign firms to build factories in India. The policy makers strongly support the view that it took years to bring the country's fiscal deficit to GDP ratio down to a reasonable level and it doesn't want to erase that progress. Higher debt levels hurt countries by making it more expensive to borrow and weakening their currencies. Hence, government incentives have a low fiscal component and a major part of it is through bank credit channels and liquidity measures.

Inflation is forecast at 5.5% for the FY21, and is estimated to ease to 5% in FY22. Headline CPI inflation shot up to a near six-and-a-half year high of 7.6% in October from 7.3% in the previous month. The increase was primarily led by a broad-based rise in food inflation, particularly vegetables. Excluding vegetables, headline inflation inched up by a much lower 14bps month-on-month. Headline inflation is expected to soften in the coming months supported by a) recent measures taken by the Government to arrest rising food prices, including easing import duties and curbing exports, b) a good Kharif harvest, c) reduced supply-side disruptions, and d) favourable base effect.

India: BSE Sensitive

Nine months of above-target inflation has effectively ruled out rate cuts by the central bank in December policy. We expect an extended pause on policy rates for now. Monetary policy focus is likely to remain on improving transmission of rate cuts.

India's exports fell 5.12% to $24.89 billion in October, after recording positive growth in September, on account of a drop in shipments of petroleum products, gems and jewellery, leather and engineering goods. The trade deficit in October narrowed to $8.71 billion as against $11.75 billion in the corresponding month a year ago. Imports also fell 11.53% to $33.6 billion (year-on-year) in October 2020.

The Indian rupee (INR) has appreciated about 3% from its low as the record inflow of dollars through Foreign Portfolio Inflows (FPI) and other modes have increased the demand for the rupee. In the coming year's expectations of a less-antagonistic trade policy from a Joe Biden White House, will drive global growth and make the rest of the world more attractive. Investors in that scenario would likely sell U.S. assets and buy risky assets of emerging market. India has amassed foreign exchange reserves of ~$575 billion.

The Corona virus is well under control in India barring a few local areas such as Delhi. With recovery outpacing the active cases despite relaxation during the festival season of the last one-and-half month, people are not in the same panic mode. However, they are still cautious. India saw a cumulative 9.43 million Corona 19 cases only and the growth of new cases has slowed considerably.

	18–19	19–20	20–21	21–22	22–23
GDP (%p.a.)	6.8	4.2	-6.0	5.0	5.5
WPI (%p.a.)	3.9	3.6	5.5	5.0	5.0
Current A/c(US$ bill.)	-70.0	-20.0	0.6	2.0	-10.0
Rs./$(nom.)	79.5	73.0	75.0	76.0	77.0

China

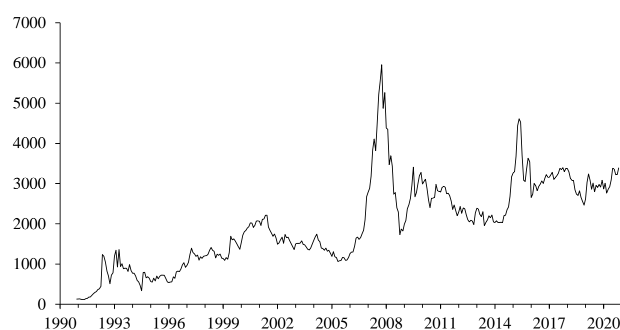
China's economy is showing healthy growth in November, with the factory PMI improved to 52.1 compared to 51.4 in October and non-manufacturing industry PMI growing to 56.4, augmented from 56.2 in October. Car sales and the results of Alibaba's Singles' Day promotions suggests that domestic consumption is growing. Other sectors of the economy are showing mixed signals. We maintain our forecast of China's GDP at 2% this year and 5.5% in 2021 partly as COVID-19 vaccines become available globally. China's economy grew 4.9% in the third quarter from a year earlier, moving back toward its pre-coronavirus trajectory. The economy had contracted 6.8% in the first quarter and expanded 3.2% in the second quarter.

The Chinese policymakers are close to setting an average annual economic growth target of around 5% for the next five years which would be in line with President Xi Jinping's key objectives for the next 15 years. They include a goal to turn China into a "high income" nation by 2025 and advance to a "moderately developed" nation by 2035, which implies income of more than $20,000 per person. The World Bank defines "high income" countries as those with per capita gross national income of above $12,535. China's per capita income reached $10,410 in 2019, according to the World Bank.

Both CPI and PPI are expected to be subdued in Q4 as weaker food prices are likely to continue to drag CPI inflation lower. Moreover, producer price deflation will continue to remain in negative territory. The possibility of CPI deflation in the coming months will prevent the People's Bank of China from tightening its policy stance by the year-end.

China's trade performance could suffer over the next few months as stringent virus control measures are re-imposed by trade partners due to recent resurgence of COVID-19 infections in Europe and the United States. Exports in October rose 11.4% over a year earlier to $237.2 billion, up from September's 9.9% gain. Imports rose 4.7% by value to $178.7 billion, decelerating from the previous month's 13.2% surge, though volumes of some goods increased. China's exporters have benefited from the relatively early reopening of the Chinese economy and demand for masks and other medical supplies. That has allowed them to take market share from foreign competitors that are hampered by anti-disease controls.

Exports for the first 10 months of 2020 rose 0.5% over the same period a year earlier to $2 trillion. Imports of crude oil rose 10.6% by volume over a year earlier in the first nine months of 2020 but fell 24.5% by value. The slow growth of



imports in October after 13.2% YoY growth in September implies that in the coming months exports could suffer from slow growth or even contract on a month-on-month basis. Integrated circuits, the single biggest reported import item, contracted by 15% month-on-month, which also reflects that the strong growth of smartphone exports may not be sustained in the coming months. China's trade surplus ballooned to $58.4 billion in October, from $37 billion in the previous month

The dollar has fallen more than 5.5% against the yuan this year. One dollar buys 6.58 yuan now. The yuan may appreciate further on the back of China's improved balance of payments position, a likely decline in trade tensions with Washington and dollar weakness.

China's financial system remained a closed shop so far, with strict controls on the flow of money in and out. Now the admission of foreign investors into China's $15 trillion bond market — cemented this year when the country rounded out its inclusion in all three of the top global indices — may just change the financial system of the world. Sustained inflows of foreign capital could make Beijing comfortable about loosening the controls that have bottled up domestic money in China for so long. China would have to do this; otherwise the yuan would strengthen, eroding the country's export competitiveness. That would let loose a wave of Chinese savings on the world. There could be as much as $5 trillion of Chinese demand for investments outside China. This would be Chinese Communist Party's five-year plan, outlined in October, recommitted to opening up. PBOC Governor Yi Gang has also highlighted the value of financial opening, saying it improves efficiency and aids higher-quality economic development.

China's financial integration will bring unpredictable change, just as the country's entry into the global trading system did. The shift of trillions of dollars of capital across borders seems likely to create winners and losers around the globe.

The Biden presidency will continue the new Cold War with China, but cooperate on climate. However, with Biden's expected pick to head the Pentagon, Michèle Flournoy, military will remain at high alert to thwart any Chinese

misadventure in the South China Sea or anywhere else in the world. President Xi Jinping is reorienting the entire economy toward "self-reliance," fearing continued U.S. trade tariffs, technology embargoes and financial sanctions. The official Xinhua News Agency quoted Xi as saying he "hopes that the two sides will uphold the spirit of non-conflict, non-confrontation, mutual respect and win-win cooperation, focus on cooperation, manage differences [and] advance the healthy and stable development of China-U.S. ties."

The U.S. House is all set to pass the legislation that would put restrictions on Chinese firms listed on U.S. exchanges. The bill will require a U.S. accounting oversight and certification of the firms which are not under control of a foreign government.

	18	19	20	21	22
GDP (%p.a.)	6.6	6.1	2.0	5.5	5.5
Inflation (%p.a.)	2.2	2.9	2.0	2.0	1.8
Trade Balance(US$ bill.)	50.0	40.0	60.0	50.0	40.0
Rmb/$(nom.)	6.8	7.1	6.7	6.6	6.5

South Korea

South Korea's exports are providing a helping hand to economic recovery. Industrial output dropped 1.7% in October from September, when it had gained 8% year-on-year. We expect the economy to shrink only 1.2% in 2020, 0.3 percentage points higher than our previous forecast. Real gross domestic product (GDP) increased 1.9% in the third quarter. Real GDP shrank 1.3% in the first quarter and 3.2% in the second quarter each on a quarterly basis due to an economic fallout from the COVID-19 pandemic. The Bank of Korea expects GDP to grow 3.0% in 2021 compared to our forecast of 2% in 2021. A recent jump in Covid-19 cases would not knock South Korea's economic recovery off track given its previous success in containing outbreaks.

The government has rolled out a total of 310 trillion won ($274 billion) stimulus, including the 7.8 trillion won extra budget approved in late September, to soften coronavirus impacts on households and small businesses amid tight social distancing restrictions.

We maintain our consumer price index forecast to rise 0.5% in 2020 and 1.0% in 2021 respectively. The central bank unanimously decided to keep its policy rate unchanged at a record-low 0.5%.

Exports declined 14.3% in November from a year earlier, according to the trade ministry. China, the country's biggest export market, continued to cut down purchases from its smaller neighbour. The weak November data from South Korea underscores tepid recovery of the global economy. The current account surplus is expected to be in line with the last year's surplus of 60 billion U.S. dollars.

The South Korean won's rally faces resistance as it tests 1,100 versus the dollar, a level that materially affects the nation's export competitiveness. Strong Korean economic

indicators and heavy foreign inflows have supported the won's outperformance versus regional peers, helping it to appreciate 5.7% in the third quarter. The news of coronavirus vaccines and removal of U.S. election uncertainty have supported demand for the risk-sensitive currency. The won's strength may be limited as new waves of coronavirus infections hit the United States and European nations.

South Korea's listed companies are set to post their strongest earnings growth since 2011. The combined net income of the Kospi 200 Index is expected to reach 22.9 trillion won ($20.6 billion) in the fourth quarter, almost double the amount for the same period a year earlier, according to Bloomberg.

	18	19	20	21	22
GDP (%p.a.)	2.7	1.8	-1.2	2.0	2.2
Inflation (%p.a.)	1.5	0.4	0.5	1.0	1.2
Current A/c(US$ bill.)	86.0	60.0	60.0	60.0	40.0
Won/$(nom.)	1130	1200	1180	1200	1240

Taiwan

Taiwan's economy is expected to grow 2.5% in 2020, as a strong rebound in exports helps it offset the impact of the coronavirus pandemic. In the third quarter the GDP posted a growth of 3.92% year-on-year, according to the Directorate General of Budget, Accounting and Statistics.

Taiwan has been able to avoid lockdowns by keeping in place a ban on inbound travel by foreigners and imposing a strict two-week quarantine on local residents returning home from abroad. As a result, factories in Taiwan were able to stay open and feed surging exports that are helping drive the island toward a V-shaped recovery. Moreover, Taiwan is the first beneficiary of the U.S.-China trade and tech war as it posts higher GDP growth in 2020 compared to 2% growth in GDP in 2019. Taiwan's economy should continue to benefit from Taiwanese companies bringing investment back from China.

Domestic consumption was still holding back the island's economy in the third quarter. Private consumption contracted 1.5% from a year earlier in the third quarter, compared with a slump of nearly 5% in the previous quarter. People are venturing out in malls, restaurants and bars in the capital of Taipei while wearing face masks on public

transportation and in some social situations. The baseball stadiums are welcoming fans without requiring masks.

Taiwan's exports surged to the U.S. and China as the world's two largest economies fight for tech and trade dominance. Taiwan's exports to the U.S. are likely to continue their strong growth with an end to the trade war nowhere in sight.

Taiwan and the U.S. are moving ahead with a plan to finance infrastructure and energy projects in Asia and Latin America, using capital raised from the private sector to ensure greater transparency. The plan, initiated with the signing of an agreement between the U.S. and Taiwan in September, aims to raise funds through bonds aimed at Taiwanese banks, insurers and other private capital. The move is aimed to counter China's global infrastructure spree amid concerns about Beijing's commitment to international projects and worsening finances among developing countries. Taiwan is the latest addition to an expanding roster of U.S. partnerships on infrastructure investment in third countries. Sixteen other countries have reached similar agreements with Washington, under which companies from those countries work with the U.S. International Development Finance Corporation to fund infrastructure projects. Japan, South Korea and Australia announced a partnership with the U.S. in 2018.

	18	19	20	21	22
GDP (%p.a.)	2.6	2.0	2.5	2.9	2.2
Inflation (%p.a.)	1.2	1.0	-1.0	1.0	1.0
Current A/c(US$ bill.)	68.0	70.0	71.0	70.0	60.0
NT$/$(nom.)	29.8	31.0	29.0	28.5	31.0

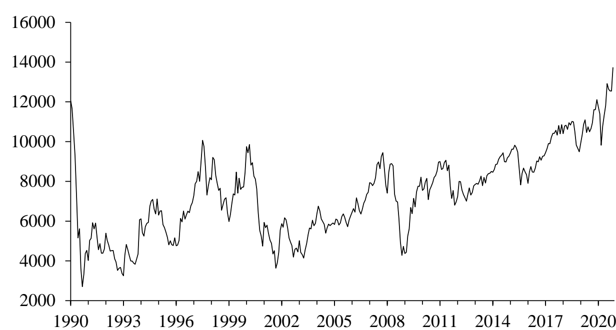
Brazil

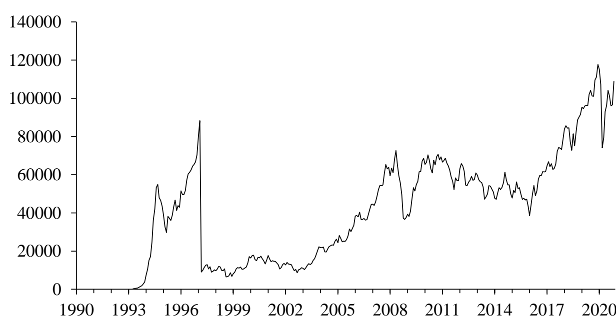
The Brazilian economy is showing signs of revival. The government has raised its 2020 economic growth forecast to -4.5% from -4.7%, on the strength of economic recovery of the third-quarter.

Fitch, the rating agency, forecasts the Brazilian economy to contract by 5.0% in 2020 and expand 3.2% in 2022. Brazil's fiscal and monetary support is moderating the Covid-19 impact to the economy. The coronavirus voucher (a transfer to vulnerable population) has provided an important support to households in 2020. However, how far it can continue is open to question. Hence, we are going to maintain our forecast of 5.5% contraction in 2020 and a gradual recovery of 2.0% in 2021.

Brazil's fiscal position has deteriorated sharply in 2020. The general government deficit is expected to rise to 16.7% of GDP from around 6.0% in 2019. The economic recession and postponement of concessions have adversely impacted revenues. Moreover, the coronavirus voucher is expected to cost around 4.5% of GDP alone.

Brazil's government might spend a further 4% of gross domestic product on emergency support measures next year if there is a second wave of COVID-19, according to the Economy Minister Paulo Guedes. The minister has emphasized that the government is taking all the measures to





reduce the record deficit including the likely privatization of four companies next year. The companies are the postal service, electricity giant Eletrobras, the port of Santos, and the portfolio of oil assets in the government-owned group PPSA.

The IPCA consumer price index rose 0.86% in October from 0.64% the month before. Prices rose 3.92% in the 12 months through October, the highest since February.

The ministry also raised its 2020 inflation forecast to 3.1% from 1.8%. Inflation increased 3.9% in October, on higher food and energy prices. The government expects inflation to be 3.2% in 2020 and 2.9% next year, both still well below the central bank goals of 4%. Producer prices have risen faster, reflecting pressure from higher energy prices and pass-through from a weaker exchange rate. The central bank has cut its policy rate by 250 bps during 2020 to a historically low level of 2%.

The current account deficit to fall to 0.4% of GDP in 2020 from 2.8% in 2019 and increase to 1.0% in 2021 as the economy gets out of the recession.

The Brazilian real is the most undervalued emerging market currency. It is estimated to be undervalued by 15%. The real is slowly starting to recover, powered by the current account surplus and a gradual recovery in foreign portfolio flows. The real's fair value is 4.50 per US dollar compared to the present rate of 5.35 real to a US dollar.

Fitch Ratings has affirmed Brazil's Long-Term Foreign Currency Issuer Default Rating (IDR) at 'BB-' with a Negative Outlook. The outlook reflects the severe

deterioration in Brazil's fiscal deficit and public debt burden during 2020 and persisting uncertainty regarding fiscal consolidation given continued spending pressures. According to Fitch Ratings, the rising near-term domestic debt maturities amid a heavy public debt burden make Brazil vulnerable to shocks, including shifts in domestic investor confidence and financing conditions.

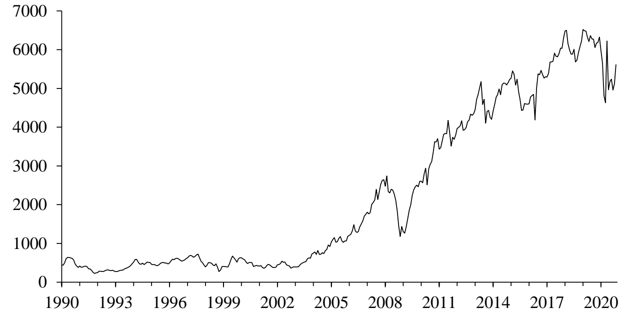
The government dole outs have lifted Mr. Bolsonaro's approval ratings to a record high even as he faces widespread criticism from health experts over his handling of the pandemic. The president is toying with an idea of introducing a new permanent social-welfare program to replace Bolsa Família, the widely praised monthly stipend for the poor. This could be a red flag among investors that the president is giving priority to votes over financial stability after seeing debacle of his party in the November municipal elections.

	18	**19**	**20**	**21**	**22**
GDP (%p.a.)	1.1	0.8	-5.5	2.0	2.5
Inflation (%p.a.)	3.8	4.3	3.6	4.0	4.0
Current A/c(US$ bill.)	-14.6	-36.0	-7.6	-20.0	-26.0
Real/$(nom.)	3.8	4.2	5.5	4.9	4.8

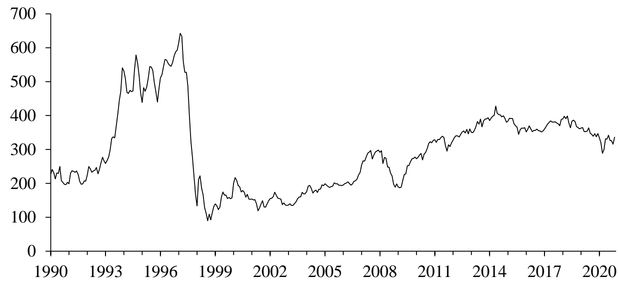
Other Emerging Markets

Hong Kong: FT-Actuaries

Indonesia: Jakarta Composite

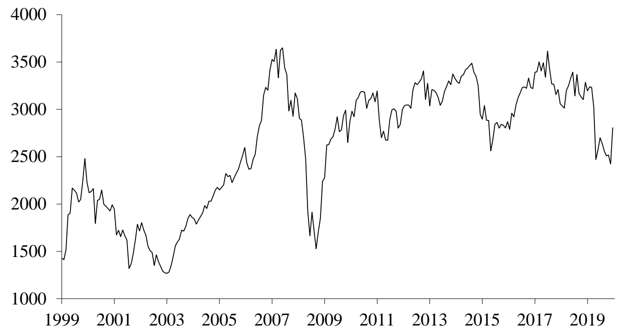


Malaysia: FT-Actuaries
(US$ Index)

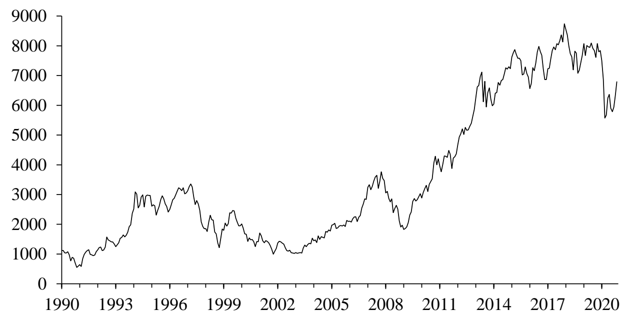


Thailand: Composite Index

Singapore: Straits Times Index

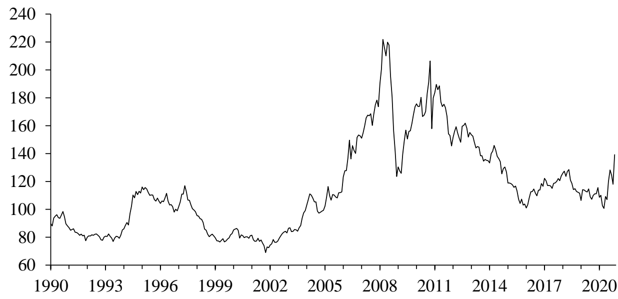


Philippines: Manila Composite

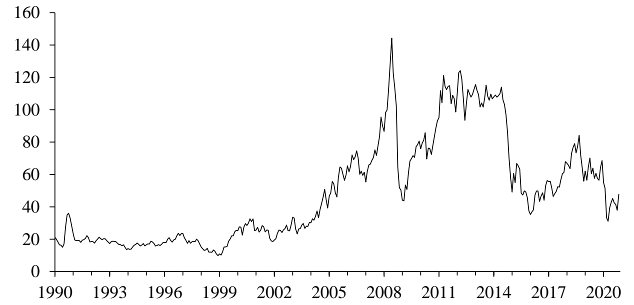


COMMODITY MARKETS

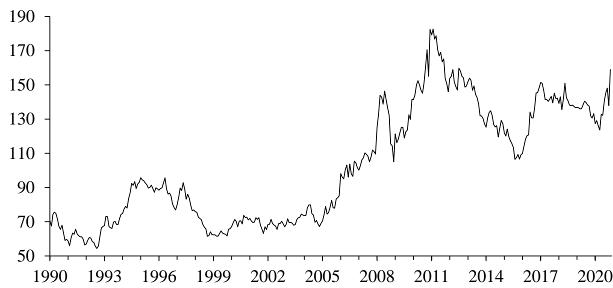
Commodity Price Index (Dollar)
(Economist, 2015 = 100)



Oil Price: North Sea Brent (in Dollars)

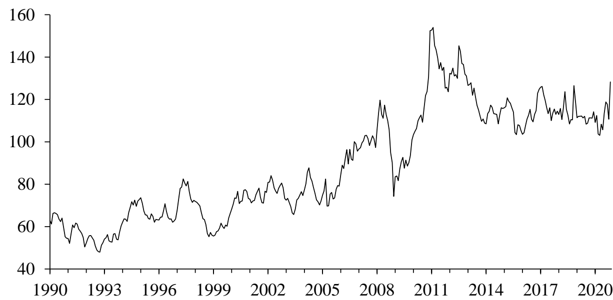


Commodity Price Index (Sterling)
(Economist, 2015 = 100)



Gold Price (in Dollars)

Commodity Price Index (Euro)
(Economist, 2015 = 100)



UK FORECAST DETAIL

Prices, Wages, Interest Rates and Exchange Rate Forecast (Seasonally Adjusted)

	Inflation %[1] (CPI)	Short Dated (5 Year) Interest Rates	3 Month Int. Rates	Nominal Exchange Rate (2005=100)[2]	Real Exchange Rate[3]	Real 3 Month Int. Rates %[4]	Inflation (RPIX)	Real Short Dated Rate of Interest[5]
2018	2.4	1.0	0.7	78.6	76.9	-1.1	3.3	-1.0
2019	1.8	0.6	0.8	78.1	75.9	-0.1	2.5	-1.1
2020	0.9	0.2	0.2	78.6	73.5	-1.4	1.2	-1.6
2021	1.6	0.4	0.2	80.1	75.5	-1.8	2.2	-1.5
2022	2.1	1.8	1.5	80.0	75.8	-0.5	3.0	-0.2
2023	2.0	4.7	4.5	79.9	76.0	2.5	2.7	2.7
2020:1	1.4	0.4	0.6	79.5	74.9	-0.6	2.7	-1.3
2020:2	0.6	0.0	0.1	77.6	71.9	-1.4	1.4	-1.8
2020:3	0.7	0.1	0.1	77.7	72.4	-1.6	0.3	-1.8
2020:4	1.0	0.4	0.1	79.6	74.8	-1.8	0.6	-1.5
2021:1	1.2	0.4	0.2	79.6	75.2	-1.9	1.6	-1.6
2021:2	1.5	0.4	0.2	80.7	75.7	-1.9	1.9	-1.6
2021:3	1.7	0.5	0.3	80.2	75.7	-1.8	2.4	-1.5
2021:4	1.9	0.5	0.3	80.0	75.5	-1.7	2.8	-1.5
2022:1	2.1	1.0	1.0	79.5	75.4	-0.9	3.3	-1.0
2022:2	2.1	1.8	1.5	80.5	76.0	-0.5	3.0	-0.2
2022:3	2.1	2.0	1.6	80.1	75.9	-0.4	2.9	0.0
2022:4	2.0	2.5	2.0	80.0	75.8	0.0	2.7	0.5

[1] Consumer's Expenditure Deflator
[2] Sterling Effective Exchange Rate Bank of England
[3] Ratio of UK to other OECD consumer prices adjusted for nominal exchange rate
[4] Treasury Bill Rate less one year forecast of inflation
[5] Short Dated 5 Year Interest Rate less average of predicted 5 year ahead inflation rate

Labour Market and Supply Factors (Seasonally Adjusted)

	Average Earnings (1990=100)[1]	Wage Growth[2]	Unemployment (New Basis) Percent[3]	Millions	Real Wage Rate[4] (1990=100)
2018	266.6	3.0	4.1	1.1	142.8
2019	275.7	3.5	3.8	1.0	148.8
2020	275.9	0.3	5.0	1.3	147.9
2021	282.1	2.3	5.6	1.5	148.9
2022	291.0	3.2	3.6	1.0	150.5
2023	300.6	3.3	2.9	0.8	152.4
2020:1	279.7	2.7	4.0	1.0	150.0
2020:2	270.1	-0.5	4.1	1.1	145.9
2020:3	276.4	-0.6	4.8	1.3	147.8
2020:4	277.3	-0.2	6.9	1.8	148.0
2021:1	279.4	-0.1	6.4	1.7	147.9
2021:2	278.6	3.2	5.8	1.5	148.3
2021:3	284.4	2.9	5.3	1.4	149.5
2021:4	285.9	3.1	4.7	1.2	149.8
2022:1	288.1	3.1	4.2	1.1	149.4
2022:2	287.8	3.3	3.8	1.1	150.0
2022:3	293.3	3.1	3.3	0.9	151.1
2022:4	294.7	3.1	3.0	0.8	151.4

[1] Whole Economy
[2] Average Earnings
[3] Wholly unemployed excluding school leavers as a percentage of employed and unemployed, self employed and HM Forces
[4] Wage rate deflated by CPI

Estimates and Projections of the Gross Domestic Product[1] (£ Million 1990 Prices)

	Expenditure Index	£ Million '90 prices	Non-Durable Consumption[2]	Private Sector Gross Investment Expenditure[3]	Public Authority Expenditure[4]	Net Exports[5]	AFC
2018	165.5	792330.9	445721.1	307723.0	201029.6	-41308.9	120833.9
2019	167.8	803514.4	475369.3	308458.5	209136.4	-70959.7	118490.1
2020	150.0	718476.1	420452.9	249418.8	199237.6	-30051.5	120581.7
2021	158.1	756923.9	447041.8	266059.5	206929.7	-33024.7	130082.4
2022	164.7	788777.8	453549.5	290984.1	208197.1	-30743.3	133209.6
2023	170.0	814289.1	460358.3	309186.2	209439.4	-28806.2	135888.6
2018/17	1.3		1.0	2.3	0.2		-4.6
2019/18	1.4		1.1	-4.7	2.2		-12.4
2020/19	-10.6		-11.6	-19	-4.8		6.8
2021/20	6.1		7.3	9.4	4.4		4.9
2022/21	4.2		1.5	9.3	0.6		3.3
2023/22	3.2		1.5	6.3	0.6		3.3
2020:1	164.2	196593.0	118032.8	72147.1	51656.8	-11632.2	33611.5
2020:2	131.7	157646.1	91565.8	47009.3	43743.5	429.6	25102.1
2020:3	151.1	180847.7	99893.7	71247.0	50846.1	-10259.5	30879.6
2020:4	153.2	183389.3	110960.6	59015.4	52991.2	-8589.3	30988.6
2021:1	156.8	187734.8	112264.9	71379.2	51092.1	-14304.1	32697.3
2021:2	158.7	189958.1	111099.5	63816.2	51382.0	-4227.8	32111.8
2021:3	157.4	188426.7	111232.3	65413.0	51174.4	-6797.8	32595.2
2021:4	159.4	190804.2	112445.1	65451.1	53281.3	-7695.0	32678.3
2022:1	165.5	198169.7	113844.0	80174.4	51388.5	-13800.2	33437.0
2022:2	164.7	197178.3	112654.9	69212.6	51690.2	-3387.5	32991.9
2022:3	162.6	194610.3	112897.7	70334.8	51481.4	-6585.6	33518.0
2022:4	166.1	198819.5	114152.9	71262.3	53637.0	-6970.1	33262.6

[1] GDP at factor cost. Expenditure measure; seasonally adjusted
[2] Consumers expenditure less expenditure on durables and housing
[3] Private gross domestic capital formation plus household expenditure on durables and clothing plus private sector stock building
[4] General government current and capital expenditure including stock building
[5] Exports of goods and services less imports of goods and services

Financial Forecast

	PSBR/GDP %[1]	GDP[1] (£bn)	PSBR (£bn) Financial Year	Debt Interest (£bn)	Current Account (£ bn)
2018	1.9	2092.5	39.3	22.4	-82.9
2019	2.0	2127.5	43.2	24.0	-83.8
2020	17.9	1955.7	332.5	25.8	-42.1
2021	7.2	2149.6	155.3	26.8	-47.1
2022	3.8	2276.2	86.4	29.2	-41.1
2023	1.7	2397.8	40.4	33.4	-36.8
2020:1	-0.9	542.0	-5.0	6.5	-20.6
2020:2	39.4	431.7	170.1	6.4	-2.8
2020:3	12.0	495.3	59.4	6.4	-14.7
2020:4	11.8	508.4	60.0	6.5	-4.0
2021:1	8.3	520.3	43.0	6.6	-26.3
2021:2	7.3	526.6	38.5	6.6	-12.2
2021:3	7.6	526.8	40.2	6.7	-6.8
2021:4	8.1	534.9	43.5	6.7	-1.8
2022:1	5.9	561.4	33.0	6.8	-24.9
2022:2	4.3	557.9	24.2	6.9	-10.3
2022:3	4.9	554.6	27.0	7.0	-5.9
2022:4	4.8	570.7	27.5	7.5	0.0

[1] GDP at market prices (Financial Year)

WORLD FORECAST DETAIL

Growth Of Real GNP

	2017	2018	2019	2020	2021	2022
U.S.A.	2.3	3.0	2.2	–3.6	4.0	2.5
U.K.	1.8	1.3	1.4	–10.6	6.1	4.2
Japan	2.2	0.3	0.7	–5.3	2.6	1.0
Germany	2.6	1.3	0.6	–5.4	3.9	2.0
France	2.4	1.8	1.5	–9.3	5.9	2.0
Italy	1.7	0.9	0.3	–9.0	4.9	1.9

Growth Of Consumer Prices

	2017	2018	2019	2020	2021	2022
U.S.A.	2.1	2.4	1.8	2.0	2.0	2.0
U.K.	2.6	2.4	1.8	0.9	1.6	2.1
Japan	0.5	1.0	0.5	0.0	0.0	0.5
Germany	1.5	1.8	1.4	0.5	1.5	1.7
France	1.0	1.8	1.1	0.5	0.8	1.5
Italy	1.2	1.2	0.6	–0.2	0.4	1.0

Real Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	–1.0	0.6	–0.5	–1.6	–1.0	0.0
U.K.	–2.0	–1.1	–0.1	–1.4	–1.9	–0.5
Japan	–0.9	–0.4	0.1	0.0	–0.4	–0.5
Germany	–2.1	–1.7	–0.9	–1.9	–2.2	–1.9
France	–2.1	–1.4	–0.9	–1.2	–2.0	–1.7
Italy	–1.5	–0.9	–0.2	–0.8	–1.5	–1.4

Nominal Short-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	1.4	2.4	1.5	0.4	1.0	2.0
U.K.	0.4	0.7	0.8	0.2	0.2	1.8
Japan	0.1	0.1	0.1	0.0	0.1	0.1
Germany	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1
France	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1
Italy	–0.3	–0.3	–0.4	–0.4	–0.5	–0.1

Real Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	0.4	0.9	0.1	0.3	0.8	1.0
U.K.	–1.2	–0.7	–1.1	–1.7	–1.6	–0.2
Japan	–0.6	–0.6	–0.6	–0.5	–0.6	–0.7
Germany	–1.2	–1.4	–1.9	–2.3	–2.2	–2.0
France	–0.6	–0.7	–1.4	–1.9	–1.7	–1.6
Italy	0.9	1.8	0.2	–0.6	–0.5	–0.3

Nominal Long-Term Interest Rates

	2017	2018	2019	2020	2021	2022
U.S.A.	2.4	2.9	2.1	2.3	2.8	3.0
U.K.	0.6	1.0	0.6	0.2	0.4	1.8
Japan	0.1	0.0	0.0	0.1	0.1	0.1
Germany	0.4	0.2	–0.2	–0.5	–0.3	0.0
France	0.8	0.7	0.1	–0.3	0.0	0.2
Italy	1.9	2.8	1.4	0.7	0.9	1.2

Index Of Real Exchange Rate(2000=100)[1]

	2017	2018	2019	2020	2021	2022
U.S.A.	94.5	93.5	96.3	96.2	95.5	94.9
U.K.	75.5	76.9	75.9	73.5	75.5	75.8
Japan	58.3	57.8	56.3	54.2	51.4	48.0
Germany	94.3	96.5	95.6	94.1	92.2	90.0
France	95.3	97.4	96.3	94.5	92.1	89.4
Italy	101.2	102.8	104.5	105.2	103.8	101.7

[1] The real exchange rate is the domestic price level relative to the foreign price level converted into domestic currency. A rise in the index implies an appreciation in the real exchange rate.

Nominal Exchange Rate
(Number of Units of Local Currency To $1)

	2017	2018	2019	2020	2021	2022
U.S.A.[1]	101.68	10.96	104.31	106.53	105.84	104.43
U.K.	1.29	1.34	1.28	1.28	1.28	1.30
Japan	112.14	110.43	109.03	106.79	107.50	107.30
Eurozone	0.89	0.85	0.89	0.88	0.88	0.87

[1] The series for the USA is a trade weighted index (1990=100); the series for the UK is $ per £

* Forecasts based on the Liverpool World Model